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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,854	10/23/2003	Mark H. Falahee	FLH-10702/29	6727
25006	7590	03/23/2006	EXAMINER	
GIFFORD, KRASS, GROH, SPRINKLE & CITKOWSKI, P.C			PREBILIC, PAUL B	
PO BOX 7021			ART UNIT	
TROY, MI 48007-7021			PAPER NUMBER	
			3738	

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.		Applicant(s)	
	10/691,854		FALAHEE, MARK H.	
	Examiner		Art Unit	
	Paul B. Prebilic		3738	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 - Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 - Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some * c) ☐ None of:
 - 1. ☐ Certified copies of the priority documents have been received.
 - 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 26, 2006 has been entered.

Drawings

Proposed drawing changes were received on January 26, 2006. The proposed changes were not approved because Figures 7A and 7B attempt to add new matter to the specification. In particular, the detailed features of shape and details of the figures do not appear to have original support from the specification or original drawings. The drawing changes proposed for Figures 9A to 10B are not acceptable because they do not have projection lines indicating that they are expanded views. Furthermore, the drawings are of poor quality and do not comply with the requirements of Rule 84.

New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the ones filed June 13, 2005 are not acceptable. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Objections

Claim 14 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form where it has a scope different from claim 1. Claim 14 fails to further limit claim 1 which now contains the same limitation.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, line 4, the terminology "convex plane" does not make sense since a plane is denoted as a flat surface and a convex surface is surface that is not flat, but rather, one that bulges outwardly. Claims 2-16 are considered indefinite because they depend upon claim 1.

Regarding claim 7, line 3, "lass" appears to be a misspelling of ---less---. The claim will be treated as if "less" were present in place of "lass" when evaluating it on its merits.

Regarding claim 8, the claim language of singular "trapezoid" does not make sense based upon the end of the claim that appears to require more than one trapezoid.

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The claim language will be treated as only requiring one "trapezoid" when evaluating it on its merits.

Regarding claim 16, line 1, "generally to one another" appears to be missing a noun associated with the modifier "generally." Since the claim language is incomplete and does not clearly modify base claim 1, it will be treated as having the same scope as claim 1.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-5, 7, and 8 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4, 6, and 8-10 of copending Application No. 10/462,498. Although the conflicting claims are not identical, they are not patentably distinct from each other because the copending claims are broader in every aspect except for the requirement that there be a fillable volume and that the gate be a "locking" gate. However, the filling volume is inherent to the presently claimed invention because the "cage" is capable being packed with bone

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graft material; see the last two lines of claim 1. Furthermore, since any gate that is fixed in place could be construed as "locking", the claim language is considered clearly obvious over the gate of the present claims. Additionally, since all the other elements of the copending claims are recited in the present claims in a narrower fashion, the Examiner asserts that the present claims and the copending claims would extend protection of substantially the same inventions to more than one patented if both patent applications were issued.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 7, 8, 11, and 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Rinner (US 5,683,394). Rinner anticipates the claim language where the gate as claimed is equivalent to or is read on by the cap of Rinner; see the figures and column 2, line 54 to column 3, line 65. The edge of the bottom conforms to a flat plane as claimed because of the bottom horizontal platforms (4) on the bottom. The open top

as claimed conforms to a convex surface because of the cylindrical portion (5) of the upper surface.

With regard to claim 7, Applicant is directed to Figures 6 and 7.

With regard to claim 8, Applicant is directed to the paragraph bridging columns 4 and 5. The Examiner construed the claim language as only requiring one trapezoidal implant.

Claims 1, 6, 11-14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Koros et al (US 5,980,522). Koros anticipates the claim language where the gate as claimed is the cap (70) of Koros; see Figure 1, the abstract, and column 4, line 54 et seq. Koros is interpreted in an analogous to the manner in which the Rinner device was interpreted in the Section 102 rejection statement supra.

Claims 1, 6, 10-14 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Gerbec et al (US 2004/0054412). Gerbec anticipates the claim language where the gate as claimed is the reinforcing member (197); see Figures 5A and 6C.

With regard to claim 10, Applicant is directed to Figure 3A.

With regard to claim 14, Applicant is directed to Figure 4C.

Claims 1, 7-11, 14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Michelson (US 5,609,635). Michelson anticipates the claim language where the gate as claimed is met by the door (134) of Michelson and the language "after the cage is positioned in an intervertebral disc space . . . " (see the last two lines), is considered to be a statement of intended use that does not distinguish from

Michelson; see Figures 1-6. The plane of Michelson's top surface is considered to be convex because of the rounded edges.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rinner (US 5,683,394) in view of Stubstad (US 3,867,728). Rinner meets the claim language as explained *supra* but fails to disclose indenting the back wall as claimed. However, Stubstad teaches that it was known to indent backwalls of similar implants in order to limit the pressure on adjacent nerves; see column 3, lines 29-33. Therefore, it is the Examiner's position that it would have been obvious to shape the back wall of Rinner to prevent neurocompression, by making an indentation therein, in order to make the patient more comfortable, as implicitly taught by Stubstad.

Claim 9 is rejected under 35 U.S.C. 102(b) as anticipated by Koros et al (US 5,980,522) or, in the alternative, under 35 U.S.C. 103(a) as obvious over Koros et al (US 5,980,522) in view of Carl et al (US 6,607,530). Koros anticipates the claim language when one does not interpret the claim language positively requiring a jig since a jig is not an implant and is merely a means to insert an implant.

Alternatively, if one does consider a jig as positively required, Koros does not fully meet the claim language. However, Carl teaches that it was known to use jigs,

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screws, and screw holes in similar implants in order to fix similar implants to the body; see Figures 1A to 2A and column 6, lines 54-67. Therefore, it is the Examiner's position that it would have been considered *prima facie* obvious to use a jig, screws, and screw holes in the implant with Koros implant as a means to fixate it to adjacent vertebrae.

Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rinner (US 5,683,394) or Koros et al (US 5,980,522) in view of Chung et al (US 6,712,852). Rinner or Koros fail to disclose materials to make the implant as claimed. However, Chung teaches that it was known to make similar spinal implants of carbon fiber reinforced material and to mark such implants with radiopaque markers; see column 6, lines 34-51 and column 8, lines 13-20. Therefore, it is the Examiner's position that it would have been obvious to make the implant of either Rinner or Koros out of carbon fiber reinforced radiolucent material and to mark it with radiopaque markers for the same reasons that Chung does the same.

Conclusion

Applicant should specifically point out the support for any amendments made to the disclosure, including the claims (MPEP 714.02 and 2163.06). Due to the procedure outlined in MPEP 2163.06 for interpreting claims, it is noted that other art may be applicable under 35 USC 102 or 35 USC 103(a) once the aforementioned issue(s) is/are addressed.

Applicant is respectfully requested to provide a list of all copending applications that set forth similar subject matter to the present claims. A copy of such copending claims is respectfully requested in response to this Office action if the application is not stored in image format (i.e. the IFW system) or published.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Paul B. Prebilic whose telephone number is (571) 272-4758. He can normally be reached on 6:30-5:00 M-Th.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, McDermott Corrine can be reached on 571-272-4754. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Paul Prebilic
Primary Examiner
Art Unit 3738



REPLACEMENT DRAWING SHEET
Serial No. 10/691,854

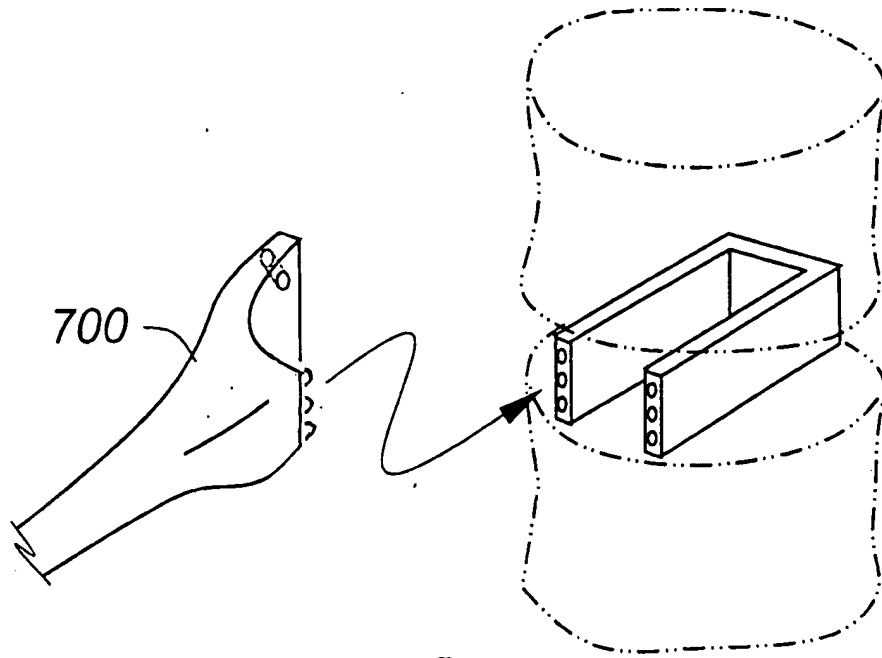


Fig - 7A

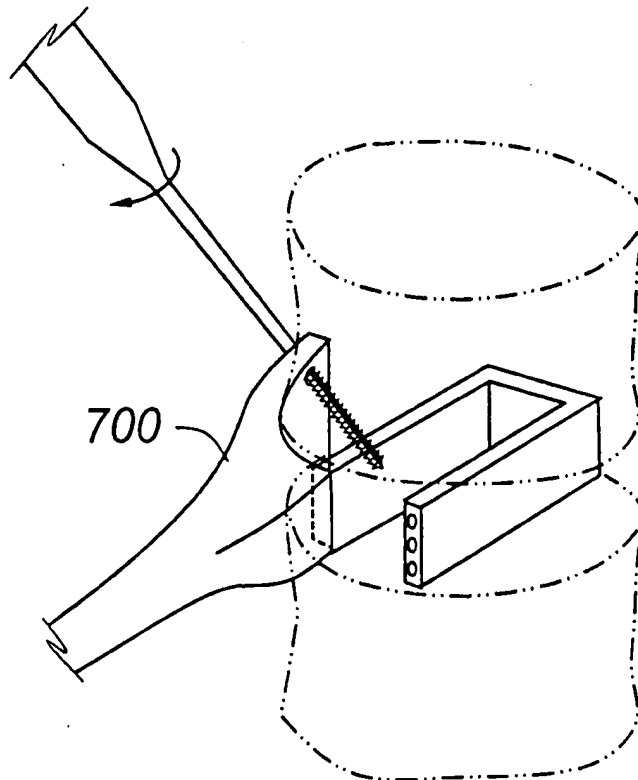
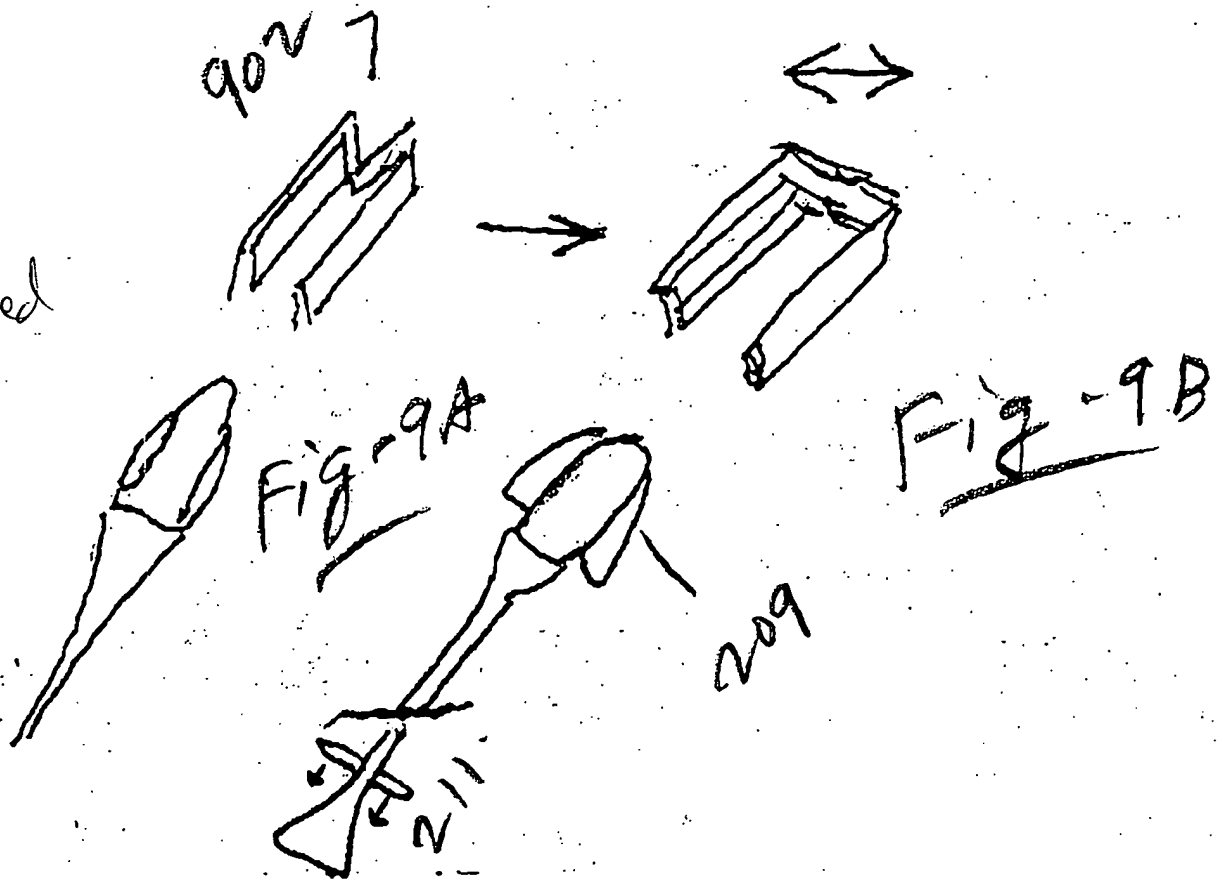


Fig - 7B

Changes
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FBP
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Fig - 10B

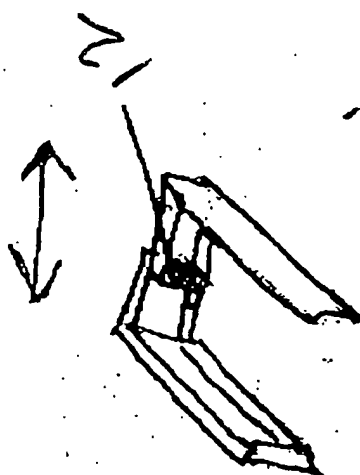
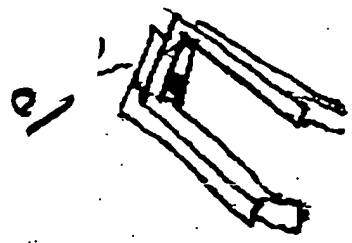


Fig - 10A



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